

Claims

- [c1] 1. A system for monitoring combustible gas comprising:
a phase separator having a first outlet
a conduit having an inlet connected to said phase separator and an exhaust outlet; and,
a combustible gas sensor adjacent said exhaust outlet and connected to said conduit.
- [c2] 2. The system for monitoring combustible gas of claim 1 wherein said exhaust outlet is oriented perpendicular to said conduit inlet.
- [c3] 3. The system for monitoring combustible gas of claim 2 wherein said combustible gas sensor is inside said conduit.
- [c4] 4. The system for monitoring combustible gas of claim 3 wherein said combustible gas sensor is mounted to said conduit generally perpendicular to said exhaust outlet.
- [c5] 5. The system for monitoring combustible gas of claim 4 wherein said combustible gas sensor includes a sensing surface, said sensor being positioned such that said sensing surface is adjacent said exhaust outlet.

- [c6] 6. The system for monitoring combustible gas of claim 1 wherein said conduit is metallic.
- [c7] 7. The system for monitoring combustible gas of claim 1 wherein said conduit is a conductive polymer.
- [c8] 8. The system for monitoring combustible gas of claim 6 wherein said conduit is stainless steel.
- [c9] 9. The system for monitoring combustible gas of claim 8 wherein said combustible gas sensor is electrically grounded to said conduit.
- [c10] 10. A system for monitoring combustible gas comprising:
a bracket having a main body and a first flange on one end of said body and a second flange on an end of said body opposite said first flange;
a housing mounted to said bracket, said housing having an opening to receive a gas stream; and,
a combustible gas sensor mounted to said first flange.
- [c11] 11. The system for monitoring combustible gas of claim 10 wherein said first flange includes an opening and said second flange includes an opening, said first flange opening and said second opening being sized to receive different combustible gas sensors.

- [c12] 12. The system for monitoring combustible gas of claim 11 wherein said housing includes tabs sized to be received in slots in said bracket main body.
- [c13] 13. The system for monitoring combustible gas of claim 12 wherein said bracket is metallic.
- [c14] 14. The system for monitoring combustible gas of claim 13 wherein said bracket is steel.
- [c15] 15. A system for generating hydrogen gas comprising:
an electrochemical cell stack;
a phase separator fluidly coupled to said electrochemical stack for receiving a water gas mixture;
a vent conduit fluidly connected and extending vertically from the top of said phase separator; and,
a combustible gas sensor coupled to said vent conduit.
- [c16] 16. The system for generating hydrogen gas of claim 15 wherein said vent conduit is metallic.
- [c17] 17. The system for generating hydrogen gas of claim 16 wherein said combustible gas sensor is electrically grounded to said vent conduit.
- [c18] 18. The system for generating hydrogen gas of claim 17 wherein said vent conduit further comprises an exhaust

outlet.

- [c19] 19. The system for generating hydrogen gas of claim 18 wherein said combustible gas sensor is positioned adjacent to said exhaust outlet.